CARIBOU CYCLE

With well over 450,000 animals, the Western Arctic Caribou herd is the second largest in North America. (The George River caribou herd in the Canadian provinces of Quebec and Labrador numbers approximately 600,000).

Ranging over an area of 140,000 square miles – more than half the size of Texas – the herd wanders from the north slope of the Brooks Range south to the Yukon river and as far east as the Trans-Alaska pipeline corridor.

The caribou's timeless, annual migration cycle begins in June with calving on the northern slopes of the Brooks Range. After calving, the herd forms into separate groups and disperses in search of relief from the summer's heat and pestering insects. As summer passes and the days grow shorter, the fall migration begins its long journey through the passes of the Brooks Range and across the Noatak and Kobuk Rivers, heading to the wintering grounds in the south. In late march and early April – following the long, Arctic winter – the caribou begin their spring migration, returning to the starting point of this age old cycle.

Since a population low of 75,000 caribou in 1976, the herd has steadily increased in numbers. Prior to the 1970s decline, the population was estimated at 240,000 caribou. Because the Western Arctic Caribou Herd is a vital subsistence resource, and caribou population numbers tend to fluctuate drastically, biologists use modern technology to obtain biological information about the herd across its vast range throughout the year.

Important population characteristics such as reproduction, mortality, and calf survival, combined with seasonal movements, reveal clues to the population's health. In order to collect this information, biologists maintain a sample of caribou with neck collars that have attached radio transmitters. During any given year, approximately 100 such radio collars are on caribou to monitor not only an individual animal's fate, but more importantly, to record movements of the herd and to locate caribou for periodic aerial surveys and a population census taken once every three years.

Radio collars are put on caribou by using personnel and boats to physically restrain caribou while they swim the Kobuk River within Kobuk Valley National Park. Although radio collars are an important wildlife management tool, biologists still must use fixed-wing aircraft to locate the individuals by following the radio signal. The triennial population census is presently the best method to determine population size. Following calving in June, caribou aggregations on the North Slope of the Brooks Range are found by locating

the collared animals and by visually searching vast areas using fixed-winged aircraft. Caribou groups are photographed using a specially equipped aircraft, and each caribou in each photograph is later counted to produce a minimum population estimate.

How big will the Western Arctic Caribou Herd grow? No one can answer that question, but biologists will continue to collect information which will ensure that caribou continue to be an integral part of the arctic ecosystem and of the cultural tradition in Northwest Alaska.